CW#16: Transversals

Geometry

Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ TP: \_\_\_\_\_\_\_

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| **CRS** | PPF 301 Exhibit some knowledge of the angles associated with parallel lines  PPF 401 Find the measure of an angles using properties of parallel lines |
| **Objective** | 2.7 Identify the angles that are created when two parallel lines are intersected by a transversal  2.8 Use parallel line and transversal angle theorems to solve for the missing angle |

Classwork Copy: DO NOT Write on or keep. Please return to teachers at the end of class.

Identify each pair of angles as corresponding, alternate interior, alternate exterior, or consecutive interior.

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| Example 1: | Example 2: | Example 3: |
| 4. | 5. | 6. |
| 7. | 8. | 9. |
| 10. 3 and 1 | 11. 3 and 5 | 12. |

Find the measure of the angle indicated.

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| Example 1 | Example 2: | Example 3: |
| 4. | 5. | 6. |
| Example 4: Find the value of x. | Example 5: Find the value of x. | Example 6: Find the value of x. |
| 7. Find the value of x. | 8. Find the value of x. | 9. Find the value of x. |

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| Example 7:  In the figure below, line segments *a*  and *b* are parallel and they are intersected by line segment *c*. What is the relationship between 4 and 5?     1. *m*4 = *m*5 2. *m*4 *m*5 3. *m*4 + *m*5 = 90 4. *m*4 + *m*5 = 180 5. Cannot be determined from the given information | You Try!  In the figure below, lines l and m are parallel. Which of the following angles does not have a measure of 75?   1. 1 2. 2 3. 3 4. 4 5. 5   5  1  2  4  3  *l*  105o  *m*  75o |
| Example 8:  If 1 5, then which pairs of lines, if any, must be parallel?     1. *a b* only 2. *m n* only 3. *a b* and *m n* 4. No lines must be parallel 5. Cannot be determined from the given information | You Try!  2. If 7 5, then which pairs of lines, if any, must be parallel?     1. *a b* only 2. *m n* only 3. *a b* and *m n* 4. No lines must be parallel 5. Cannot be determined from the given information |

Exercises, p. 142

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| 11. | 12. | 13. | 14. |
| 18. | 19. | 20. | 21. |

Exercises, p. 157

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| 3. | 4. | 5. |
| 6. | 7. | 8. |

Challenge, p. 158

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| 19.  x  x  x  x | 20.  x  x  x  x |
| 21.  x  x  x  x | 26.  x  x  x  x |